

REMARKS

Initially, in the Office Action dated May 30, 2003, the Examiner rejects claim 1 under 35 U.S.C. §112, second paragraph. The Examiner rejects claims 1 and 12 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,467,398 (Pierce et al.) in view of European Patent No. 0651533 (Diffie et al.), claims 2 and 7 under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. and Diffie et al. in view of U.S. Patent No. 6,062,472 (Cheung), claims 9 and 10 under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. and Diffie et al. and further in view of U.S. Patent No. 6,285,991 (Powar), claims 11 and 13 under 35 U.S.C. §103(a) as being unpatentable over Pierce et al., Diffie et al. and Powar et al. and further in view of International Publication No. WO 99/49404 (Cochinwala et al.), claims 14, 15, 19 and 20 under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. in view of Cheung, claims 16 and 17 under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. and Cheung and further in view of Powar and Cochinwala et al., claim 18 under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. and Cheung in further in view of "The GSM System" (Mouly et al.), and claims 21-23 under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. and Cheung and further in view of Powar and Cochinwala et al.

The Examiner objects to claims 5, 6 and 8 as being dependent upon a rejected base claim, but notes that they would be allowable if rewritten in independent form.

By this Amendment, claims 1, 2, 9, 10, 11, 13, 14, 16, 17, 19, 21-23 have

been amended. Claim 24 is added. Claims 1-24 remain pending in this application.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 5, 6 and 8 contain allowable subject matter.

35 U.S.C. §112 Rejections

The Examiner has rejected claim 1 under 35 U.S.C. §112, second paragraph, asserting that the limitations “mobile station generated variables” and “gateway generated variables” lack sufficient antecedent basis. Applicants respectfully traverse these rejections and assert that each of these limitations is the first instance of the limitation and is not preceded by a “the” or a “said”. Further, these limitations both relate to types of variables where the phrase “mobile station generated” and “gateway generated” merely serve to further define the type of variables. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

35 U.S.C. 103 Rejections

The Examiner has asserted essentially the same rejections asserted in the Examiner’s previous Office Action. Applicants reassert our arguments submitted in response to these rejections submitted in Applicants’ previous response filed April 4, 2003.

Claims 1 and 12 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. in view of Diffie et al. Applicants respectfully traverse these rejections. Regarding claim 1, Applicants submit that neither Pierce et al. nor

Diffie et al., taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of this claim of, inter alia, ordering, authorizing, and delivering goods and services using a mobile station that includes verifying the identity of a mobile station by a gateway by accessing an authentication center of a cellular network and comparing mobile station generated variables computed by the mobile station with gateway generated variables computed by the gateway, verifying the legitimacy of the gateway by the mobile station by comparing the variables computed by the gateway with the variables computed by the mobile station, requesting a digital certificate by the mobile station from the gateway used to order and authorize a product or service from a service provider, requesting a product or service from the service provider, or transmitting a digital signature by the mobile station accompanied by the digital certificate for a signature verification key as authorization to the service provider. Pierce et al. relates to messaging between a subscriber unit and an infrastructure communications center while Diffie et al. relates to privacy and authentication in a mobile wireless network. Neither Pierce et al. nor Diffie et al. disclose or suggest anything related to ordering, authorizing and delivering goods and services using a mobile station, as recited in the claims of the present application. Further, the Examiner asserts that Pierce et al. discloses verifying the identity of a mobile station by a gateway and comparing mobile station generated variables at col. 4, lines 25-35. However, this paragraph of Pierce et al. merely discloses verifying the subscriber unit's authorized access to the communications system. This is not verifying the identity of the mobile station by a

gateway by accessing an authentication center of a cellular network, as recited in the claims of the present application. Further, Pierce et al. fails to disclose or suggest verifying the legitimacy of the gateway by the mobile station by comparing the variable computed by the gateway with the variables computed by the mobile station. Pierce et al. merely describes authenticating the mobile station. Pierce et al. does not disclose or suggest both verifying the identity of the mobile station and verifying the legitimacy of the gateway, as recited in the claims of the present application.

Moreover, the Examiner admits that Pierce et al. does not disclose delivering a digital certificate to the mobile station by the gateway, as recited in the claims of the present application, but asserts that Diffie et al. discloses this limitation at page 5, lines 32-33. In Diffie et al., the authentication of the mobile to the network requires the mobile to have a valid certificate. However, Diffie et al. fails to disclose or suggest how the mobile gets the certificate in the first place. Diffie et al. on page 5, lines 28-33 discloses the private key being submitted over a secure channel to a trusted CA, the CA examining the relevant information to ascertain that the public key is indeed being presented by someone whose identity is known and can be trusted, and then, only after that, that the CA will then issue a certificate to the person (who is acting on behalf of the machine). Diffie et al. does not disclose or suggest how the CA verifies the identity of the mobile. Accordingly, these portions of Diffie et al. are not requesting a digital certificate by the mobile station from a gateway used to order and authorize a product and service from a service provider, as recited in the claims of the present application. Moreover, neither Pierce et al. nor

Diffie et al. disclose or suggest anything related to ordering or authorizing a product or service from a service provider.

In addition, none of the cited references, taken alone or in any proper combination, disclose requesting a product or service from a service provider, or transmitting a digital signature by the mobile station accompanied by the digital certificate for a signature verification key as authorization to the service provider, as recited in the claims of the present application.

Regarding claim 12, Applicants submit that this claim is dependent on independent claim 1 and, therefore, is patentable at least for the same reasons noted regarding this independent claim.

Accordingly, Applicants submit that neither Pierce et al. nor Diffie et al., taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of claims 1 and 12 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 2 and 7 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. and Diffie et al. and further in view of Cheung. Applicants submit that claims 2 and 7 are dependent on independent claim 1 and, therefore, are patentable at least for the same reasons noted previously regarding this independent claim. Applicants submit that Cheung does not overcome the substantial defects noted previously regarding Pierce et al. and Diffie et al. Accordingly, Applicants submit that none of the cited references, taken alone, or in

any proper combination, disclose, suggest or render obvious the limitations in the combination of claims 2 and 7 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 9 and 10 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. and Diffie et al. and further in view of Powar. Applicants submit that claims 9 and 10 are dependent on independent claim 1 and, therefore, are patentable at least for the same reasons noted previously regarding this independent claim. Applicants submit that Powar does not overcome the substantial defects noted previously regarding Pierce et al. and Diffie et al. Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of claims 9 and 10 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 11 and 13 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Pierce et al, Diffie et al., Powar et al. and further in view of Cochinwala et al. Applicants submit that claims 11 and 13 are dependent on independent claim 1 and, therefore, are patentable at least for the same reasons noted previously regarding this independent claim. Applicants submit that Cochinwala et al. does not overcome the substantial defects noted previously regarding Pierce et al. and Diffie et al. Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or

render obvious the limitations in the combination of each of claims 11 and 13 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 14, 15, 19 and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. in view of Cheung. Applicants respectfully traverse these rejections.

Regarding claims 14, 19 and 24, Applicants submit that neither Pierce et al. nor Cheung, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of these claims, inter alia, a mobile station verifying the legitimacy of a gateway by comparing variables calculated by a gateway with variables computed by a mobile station, the mobile station requesting a product or service from a service provider and transmitting a digital signature accompanied by the digital certificate for a signature verification key as authorization to the service provider. As noted previously, Pierce et al. fails to disclose or suggest these limitations in the claims of the present application. Cheung merely relates to increasing the value of an electronic payment card where if after authorization of a value increase to the electronic payment card, an interruption occurs, the interrupted value increase transactions may be recovered without the need for a new authorization. Neither Pierce et al. nor Cheung disclose or suggest anything related to a mobile station verifying the legitimacy of a gateway, or a mobile station requesting a product or service from a service provider, as recited in the claims of the present application. Further, neither reference discloses or suggests providing a

signature verification key as authorization to a service provider, as recited in the claims of the present application.

Regarding claims 15 and 20, Applicants submit that these claims are dependent on one of independent claims 14 and 19 and, therefore, are patentable at least for the same reasons noted regarding these claims.

Accordingly, Applicants submit that neither Pierce et al. nor Cheung, taken alone or in any proper combination, disclose suggest or render obvious the limitations in the combination of each of claims 14, 15, 19, 20 and 24 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 16 and 17 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. and Cheung and further in view of Powar and Cochinwala et al. Applicants submit that these claims are dependent on independent claim 14 and, therefore, are patentable at least for the same reasons note previously regarding this independent claim. Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest, or render obvious the limitations in the combination of each of claims 16 and 17 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claim 18 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. and Cheung and further in view of Mouly et al. Applicants submit that claim 18 is dependent on independent claim 14 and, therefore, is patentable at

least for the same reasons noted previously regarding this independent claim. Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claim 18 of the present application. Applicants respectfully request that this rejection be withdrawn and that this claim be allowed.

Claims 21-23 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Pierce et al. and Cheung and further in view of Powar and Cochinwala et al. Applicants submit that these claims are dependent on independent claim 19 and, therefore, are patentable at least for the same reasons noted previously regarding this independent claim. Accordingly, Applicants submit that none of the cited references, taken alone, or in any proper combination, disclose, suggest or render obvious the limitations in the combination of each of claims 21-23 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

In view of the foregoing amendments and remarks, Applicants submit that claims 1-24 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

U.S. Application No. 09/659,781

To the extent necessary, the Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (referencing attorney docket no. 0173.38633X00).

Respectfully submitted,

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